IN THE CLAIMS

Please substitute claims 1-23 with the following:

1. (Currently Amended) A method, comprising the steps of:

defining a tetragonal lattice, wherein the tetragonal lattice comprises a plurality of lattice sites;

growing a first fractal structure from a first ~~start site~~ of the plurality of lattice sites, wherein the step of growing the first fractal structure comprises the steps of:

identifying the lattice sites adjacent to the first lattice site;

for each lattice site adjacent to the first lattice site;

determining the probability that the lattice site is selected as part of the first fractal structure;

selecting a next lattice site based on the probability that the lattice site is selected as part of the first fractal structure; and

adding the next lattice site to the first fractal structure;

until the first fractal structure is complete:

identifying the lattice sites adjacent to the next lattice site;

for each lattice site adjacent to the next lattice site;

determining the probability that the lattice site is selected as part of the first fractal structure;

selecting the next lattice site based on the probability that the lattice site is selected as part of the first fractal structure; and

adding the next lattice site to the first fractal structure;

growing a second fractal structure from a second ~~start site~~ of the plurality of lattice sites, wherein the step of growing the second fractal structure comprises the steps of:

identifying the lattice sites adjacent to the second lattice site; ~~and~~

for each lattice site adjacent to the second lattice site;

determining the probability that the lattice site is selected as part of the second fractal structure;

selecting another lattice site based on the probability that the lattice site is selected as part of the second fractal structure;

adding the other lattice site to the second fractal structure;

until the second fractal structure is complete:

identifying the lattice sites adjacent to the other lattice site;

for each lattice site adjacent to the other lattice site;

determining the probability that the lattice site is selected as part of the second fractal structure;

selecting the other lattice site based on the probability that the lattice site is selected as part of the second fractal structure; and

adding the other lattice site to the second fractal structure; and

coupling said first fractal structure to said second fractal structure during the step of growing said second fractal structure.

2. (Previously Presented) The method according to claim 1, further comprising the step of:

determining a growth rate based on a probability that a material reaches a portion already grown from said second start site in a diffusion process, and a probability that a growth promotion factor reaches the portion already grown from portions grown from said second start site in a diffusion process, wherein said first fractal structure is grown at said growth rate.

3. (Previously Presented) The method according to claim 2, wherein said growth rate is proportional to a product of a power function of the probability that a material reaches a portion already grown from said second start site in a diffusion process, and a power function of the probability that a growth promotion factor reaches the portion already grown from portions grown from said second start site in a diffusion process.

4. (Previously Presented) The method according to claim 2, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

5. (Previously Presented) The method according to claim 3, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

6. (Previously Presented) The method according to claim 4, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said first fractal structure in an appropriate relation to a site at infinity.

7. (Previously Presented) The method according to claim 5, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said first fractal structure in an appropriate relation to a site at infinity.

8. (Previously Presented) The method according to claim 1, wherein an anisotropy is introduced into a space in which said fractal structures are grown.

9. (Previously Presented) The method according to claim 2, wherein diffusion coefficient in a space in which said fractal structures are grown has an anisotropy.

10. (Previously Presented) The method according to claim 8, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

11. (Previously Presented) The method according to claim 9, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

12. (Previously Presented) The method according to claim 1, further comprising the step of:

determining a growth rate based on a probability that a material reaches a portion already grown from said first start site in a diffusion process, and a probability that a growth promotion factor reaches the portion already grown from portions grown from said first start site in a diffusion process, wherein said second fractal structure is grown at said growth rate.

13. (Previously Presented) The method according to claim 12, wherein said growth rate is proportional to a product of a power function of the probability that a material reaches a portion already grown from said first start site in a diffusion process, and a power function of the probability that a growth promotion factor reaches the portion already grown from portions grown from said first start site in a diffusion process.

14. (Previously Presented) The method according to claim 12, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

15. (Previously Presented) The method according to claim 13, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.

16. (Previously Presented) The method according to claim 14, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said first fractal structure in an appropriate relation to a site at infinity.

17. (Previously Presented) The method according to claim 15, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said first fractal structure in an appropriate relation to a site at infinity.

18. (Previously Presented) The method according to claim 14, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said second fractal structure in an appropriate relation to a site at infinity.

19. (Previously Presented) The method according to claim 15, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said second fractal structure in an appropriate relation to a site at infinity.

20. (Previously Presented) The method according to claim 4, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said second fractal structure in an appropriate relation to a site at infinity.

21. (Previously Presented) The method according to claim 5, wherein said parameter comprises the relative potential determining diffusion of the growth promotion factor of said second fractal structure in an appropriate relation to a site at infinity.

22. (Previously Presented) The method according to claim 12, wherein diffusion coefficient in a space in which said fractal structures are grown has an anisotropy.

23. (Previously Presented) The method according to claim 22, further comprising the step of adjusting a parameter to control fractal property, self-similarity, complexity of the structure, or the number of coupling.